CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

COMPLAINT NO. R2-2004-0098

ADMINISTRATIVE CIVIL LIABILITY
IN THE MATTER OF
SANITARY SEWER OVERFLOWS
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CONTRA COSTA COUNTY

Pursuant to California Water Code (CWC) Sections 13323 and 13385, this Complaint to assess administrative civil liability (ACL) is issued to Central Contra Costa Sanitary District (hereinafter the Discharger). The Complaint addresses the Discharger's violation of Discharge Prohibition A.2 of its NPDES Order No. 01-068.

The Executive Officer finds that:

1. The violations consist of 28 incidences of unauthorized discharges, totaling 274,375 gallons of untreated sewage to waters of the state; of the total, 97,175 gallons were unrecovered. The description of releases is included in Table 1. The causes of the releases included sewer blockages, insufficient transmission capacity and equipment failures.

2. Discharge Prohibition A.2 of NPDES Order No. 01-068, adopted by the Water Board, as waste discharge requirements, on June 19, 2001, states: "The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited, unless specified otherwise."

3. Pursuant to CWC Section 13323, the Executive Officer may issue a complaint to any person on whom an administrative civil liability (ACL) may be imposed. The complaint shall allege the act or failure to act that constitutes a violation of law, the provision of law authorizing an ACL to be imposed pursuant to this article, and the proposed civil liability.

4. Pursuant to CWC Section 13385(a)(2), a discharger is civilly liable for violations of waste discharge requirements.

ALLEGATION

5. During the period beginning on February 13, 2000, and ending on December 31, 2004, the Discharger is alleged to have violated Discharge Prohibition A.2 of NPDES Order No. 01-068 for discharging 28 incidences of unauthorized discharges, totaling 274,375 gallons of untreated sewage to waters of the state; of the total, 97,175 gallons were unrecovered.

PROPOSED CIVIL LIABILITY

1. The Water Board could impose the maximum civil liability in this matter as follows:

   a. $10,000 for each day in which a violation occurred; and
   b. $10 per gallon for the discharge volume that is not susceptible to cleanup and exceeds 1,000 gallons.

   If the matter is referred to the Attorney General for judicial enforcement, a higher liability of $25,000 per day of violation and $25 per gallon may be imposed.

2. Issuance of this Complaint is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.), in accordance with Section 15321(a)(2), Title 14, California Code of Regulations.

3. In determining the amount of ACL, the following factors, which are defined in Section 13385(e) of the CWC, have been taken into consideration and are discussed in the attached Staff Analysis and Recommendations, which is incorporated herein by this reference:

   > "The nature, circumstances, extent, and gravity of the violation or violations, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue its business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and such other matters that justice may require. At a minimum, liability shall be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violation. "

CENTRAL CONTRA COSTA SANITARY DISTRICT IS HEREBY GIVEN NOTICE THAT:

1. The Executive Officer of the Water Board proposes that the Discharger be assessed an ACL in the amount of $165,000, which includes $10,000 in staff cost.

2. The Water Board will hold a hearing on this Complaint on June 15, 2005, unless the Discharger waives the right to a hearing by signing the last page of this Complaint and check the appropriate box. By doing so, the Discharger agrees to:

   a) Pay the full penalty of $165,000 within 30 days after the signed waiver becomes effective, or
   b) Pay a penalty in an amount of $10,000 within 30 days after the signed waiver becomes effective, and satisfactorily complete a supplemental environmental project (SEP) in an amount equivalent to $155,000.

3. If the Discharger chooses to propose an SEP, it must submit a proposal by June 1, 2005, for the Executive Officer's approval. Any SEP proposal shall also conform to the requirements

specified in Section IX of the Water Quality Enforcement Policy, which was adopted by the State Water Resources Control Board on February 19, 2002. If the proposed SEP is not acceptable to the Executive Officer, the Discharger has 30 days from receipt of notice of an unacceptable SEP to either submit a new or revised proposal, or make a payment for the suspended amount of $155,000. All payments, including any money not used for the SEP, must be payable to the State Water Pollution Cleanup and Abatement Account. Regular reports on the SEP implementation shall be provided to the Executive Officer according to a schedule to be determined. The completion report for the SEP shall be submitted to the Executive Officer within 60 days of project completion.

4. The signed waiver will become effective on the next day after the public comment period for this Complaint is closed, provided that there are no significant public comments on this Complaint during the public comment period. If there are significant public comments, the Executive Officer may withdraw the Complaint and re-issue it as appropriate.

5. If a hearing is held, the Water Board will consider whether to affirm, reject, or modify the proposed ACL, or whether to refer the matter to the Attorney General for recovery of the civil liability.

Bruce H. Wolfe
Executive Officer

MAY - 3 2005

Date

Attachment: Table 1 Sewer Sytems Overflows

WAIVER

(The signed waiver will become effective on the next day after the public comment period for this Complaint is closed, provided that there are no significant public comments on this Complaint during the public comment period. If there are significant public comments, the Executive Officer may withdraw the Complaint and re-issue it as appropriate.)

☐ Waiver of the right to a hearing and agree to make payment in full.
By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violations alleged in Complaint No. R2-2004-0098 and to remit the full penalty payment to the State Water Pollution Cleanup and Abatement Account, c/o California Regional Water Quality Control Board at 1515 Clay Street, Oakland, CA 94612, within 30 days after the signed waiver becomes effective as indicated above. I understand that I am giving up my right to be heard, and to argue against the allegations made by the Executive Officer in this Complaint, and against the imposition of, or the amount of, the civil liability proposed.

☐ Waiver of the right to a hearing and agree to make payment and undertake an SEP. By checking the box, I agree to waive my right to a hearing before the Water Board with regard to the violation alleged in Complaint No. R2-2004-0098 and to satisfactorily complete a supplemental environmental project (SEP) in lieu of a suspended liability of $155,000. I also agree to remit payment of $10,000 to the State Water Pollution Cleanup and Abatement Account within 30 days after the signed waiver becomes effective. I understand that the SEP proposal shall conform to the requirements specified in Section IX of the Water Quality Enforcement Policy, which was adopted by the State Water Resources Control Board on February 19, 2002, and be subject to approval by the Executive Officer. If the SEP proposal, or its revised version, is not acceptable to the Executive Officer, I agree to pay suspended penalty amount of $155,000 within 30 days of a letter from the Executive Officer denying the approval of the proposed SEP. I also understand that I am giving up my right to argue against the allegations made by the Executive Officer in the Complaint, and against the imposition of, or the amount of, the civil liability proposed. I further agree to complete the approved SEP within a time schedule set by the Executive Officer.

Name (print)	Signature
Date	Title/Organization

TABLE 1. SEWER SYSTEM OVERFLOWS

Collection System Operations Division
MONTHLY SEWER SYSTEM OVERFLOW SELF-MONITORING REPORT
(Regional Water Quality Control Board)
Reportable Overflows: January 2000 - December 2004

Overflow ID	Date	Estimated Start Time	Estimated Duration	Location				Pipe Diameter (inches)	Pipe Type	Cause of Overflow	Estimated Volume in Gallons			Estimated No. Gallons Returned to Sewer System	Discharge to Creek	Written Report
				Street Address/City	CCCSD Map Grid Number	CCCSD Structures D/S	CCCSD Structures U/S				<100	100-1,000	>1,000			
2000																
00-02	02/13	20:00	12 hrs.	#100 Price Lane, PH	47A7	M1	M2	12"	VCP	Surcharge	20,000 gallons			0 (surcharge)	X	X
00-11	04/14	8:30	2.75 hrs.	#680 Bollinger Canyon Rd., SR	102C4	M2	M3	8"	ABS	Roots	5,000 gallons			0	X	X
00-13	5/30	Not know	Approx. 7 days	#599 Silverado, LAF	74D1	M13	M14	10"	VC	Roots and grease	10,000 gallons			10,000	X	X
00-24	10/03	10:00	24 hrs.	Fairview Pumping Stn., MTZ (M4A force main)	8D7	E201	Fairview P/S	20"	CLC	Coupling failure	3,000 gallons			3,000*	X	X
														* *vacuumed area around repair (actual amount recovered is unknown)*		
							Total Reportable and Recovered Gallons in 2000				**38,000**			**13,000**		
2001																
01-12	06/02	9:30	6 hrs.	#4100 Whispering Oaks, Blackhawk	101C4	M26	M25	8"	PVC	Roots in MH	18,000 gallons			0	X	X
01-30	11/18	16:00	72hrs.	#321 Bedford Pl., MOR	74A5	M34	M33	8"	CLC	Roots	120,000 gallons			120,000	X	X
							Total Reportable and Recovered Gallons in 2001				**138,000**			**120,000**		
2002																
02-02	01/24	7:00	1.5 hrs.	Dougherty Rd. @ Bollinger Canyon, SR	102E2	P/S	M3	12"	DIP	Partial grease plug; failure of pneumatic plug	6,000 gallons			6,000	X	X

Information provided by CCCSD

See Footnotes

TABLE 1. SEWER SYSTEM OVERFLOWS

Overflow ID	Date	Estimated Start Time	Estimated Duration	Location				Pipe Diameter (inches)	Pipe Type	Cause of Overflow	Estimated Volume in Gallons			Estimated No. Gallons Returned to Sewer System	Discharge to Creek	Written Report
				Street Address/City	CCCSD Map Grid Number	CCCSD Structures					<100	100-1,000	>1,000			
						D/S	U/S									
02-05	03/19	7:30	1 hr.	#207 Shady Glen, WC	75D2	M14	M15	8"	VC	Rags	400 gallons			400	X	X
02-11	04/28	10:30	1.5 hrs.	#501 Moraga Way, OR	73C2	M4	M26	6"	VC	Roots, grease	2,900 gallons			2,900	X	X
02-12	05/23	13:00	24 hrs.	#3098 Vessing Rd., PH	46E3	M35	M46	8"	VC	Roots in M35	7,500 gallons			7,500	X	X
N/A	06/06	8:15	1 hr.	#536 Maureen Ln., PH	–	47A6 M30	49E6 M56	8"	VC	Roots, grease	1,875 gallons			0	X	X
N/A	06/19	9:45	1 hr.	#294 Moraga Way, OR	73B1	M54	M55	8"	VC	Roots	500 gallons			0	X	X
02-17	08/15	10:20	2 hrs.	St. Mary's Rd. @ Rheem Blvd., MOR	74B4	M34	M25	8"	VC	Grease, roots	3,000 gallons			3,000	X	X
02-21	10/18	09:00	1.5 hrs.	#71 Camino Encinas, OR	71A6	M109	M55	6"	VC	Roots	1,500 gallons			1,500	X	X
02-22	10/21	10:30	24 hrs.	#1332 Brown St., MTZ	10A2	M68.5	M69	6"	VC	Roots; open joint	2,000 gallons			2,000	X	X
02-23	10/26	15:00	2 hrs.	#19 Royston Walk, PH	44E6	M80	M84	8"	AC	Grease, roots	1,000 gallons			1,000	X	X
02-26	11/17	15:00	48 hrs.	#217 Glorietta Blvd., OR	71B7	M31	M32	8"	CLC	Broken creek crossing	7,500 gallons			7,500	X	X
02-27	11/18	12:00	3.5 hrs.	#120 Carrol Place, WC	72E5	M20	M21	10"	VC	Roots	300 gallons			0	X	X
02-28	11/19	08:00	1.5 hrs.	#3139 Gloria Terr., PH	46D3	M17	P18	8"	VC	Roots	6,000 gallons			6,000	X	X
02-33	12/11	07:15	1.5 hrs.	#651 St. Mary's Rd., LAF	72C7	M9	M14	8"	VC	Contractor rope	1,500 gallons			1,500	X	X
Total Reportable and Recovered Gallons in 2002											**41,975**			**39,300**		
2003																
03-14	07/09	11:15	1 hr.	#9 Heather Lane, Orinda	71B7	M34	M35	8"	CI	Disposal	250 gallons			250	X	X
03-23	12/04	18:00	14 hrs.	#6215 Alhambra Ave., PH	44D4	M16	M17	8"	AC	Concrete	900 gallons			900	X	X
03-25	12/29	15:00	2.5 hrs.	#3622 Mt. Diablo Blvd., LAF	72A3	M21	M24	12"	VC	Roots	3,000 gallons			2,500	X	X
Total Reportable and Recovered Gallons in 2003											**4,150**			**3,650**		
2004																
04-01	01/26	9:40	1.5 hrs.	#3717 Happy Valley Rd., LAF	71E1	M16	M17	6"	CI	Roots	500 gallons			500	X	X

Information provided by CCCSD

See Footnotes

TABLE 1. SEWER SYSTEM OVERFLOWS

Overflow ID	Date	Estimated Start Time	Estimated Duration	Location				Pipe Diameter (inches)	Pipe Type	Cause of Overflow	Estimated Volume in Gallons			Estimated No. Gallons Returned to Sewer System	Discharge to Creek	Written Report
				Street Address/City	CCCSD Map Grid Number	CCCSD Structures					<100	100-1,000	>1,000			
						D/S	U/S									
04-02	01/27	12:10	2 hrs.	#3349 Lower Golden Rain, Rossmoor	72E6	M22	M23	6"	VC	Other plug	750 gallons			750	X	X
04-06	02/25	9:30	0.75 hr.	#00 Camino Pablo, OR	69D3	M31	M33	10"	VC	Surcharge	2,000 gallons			0	X	X
04-14	05/22	16:35	50 mins.	#9925 Mangos Drive, SR	117C2	M10	M5			Pumping station failure	40,000 gallons			0	X	X
04-27	12/31	8:30	3 hrs.	#1600 St. Andrews Dr., MOR	73E6	M5	M6	15"	VC	Equipment failure	9,000			0	X	X
Total Reportable and Recovered Gallons in 2004											**52,250**			**1,250**		
TOTAL REPORTABLE AND RECOVERED OVERFLOW GALLONS 2000 - 2004											**274,375**			**177,200**		

Information provided by CCCSD

See Footnotes

Footnotes to Table 1. Sanitary Sewer Overflows

Overflow Report Key:

Overflow ID: CCCSD internal tracking number. Each overflow is assigned a sequential tracking number made up of the year and the next available number, which starting with 01.

Date: Date that overflow occurred, month & day of year being tracked

Estimated Start Time: Estimated time that overflow began, usually based on time call/notification received of an overflow. This will be adjusted earlier based on actual site conditions, witnesses, etc.

Estimated Duration: The time over which the overflow took place, beginning with the estimated start time until overflow stopped.

Street Address/City: Nearest actual street address and city where overflow took place with comments where appropriate.

CCCSD. Map Grid: Map grid system used in CCCSD's internal mapping system which is based on the Thomas Brothers *Street Guide* grid system in use prior to 1997.

CCCSD Structures – D/S: The structure number as designated by CCCSD's internal mapping system as the downstream structure of the line segment where the overflow occurred, with comments where appropriate.

CCCSD Structures – US: The structure number as designated by CCCSD's internal mapping system as the upstream structure of the line segment where the overflow occurred, with comments where appropriate.

Pipe Diameter (inches): The nominal size of the pipe segment at the site of the overflow.

Pipe Type: The type of material from which the line segment involved in the overflow is made, such as "VC"/"VCP" = vitrified clay pipe, "DIP" = ductile iron pipe, "CLC" = concrete lined and coated, "PVC" = polyvinyl chloride, "ABS" = acrylonitrile-butadiene-styrene, etc.

Cause of Overflow: The actual cause of the line stoppage that resulted in the overflow; typically roots or grease.

Estimated Volume in Gallons: The volume category into which the particular overflow falls; in this special report, the estimated gallons of each listed overflow is spelled out.

Footnotes to Table 1. Sanitary Sewer Overflows

Discharge to Creeks: This column notes whether or not some or all of the overflow reached the waters of the state. For the purposes of this special report, all overflows listed did.

Reported by Phone/Major Overflow: This column notes whether or not the particular overflow was reported by telephone to the Regional Water Quality Control Board, the Office of Emergency Services and any other appropriate numbers.

Written Report: This column notes whether a written report was submitted to the Regional Quality Control Board as part of the overflow follow-up actions. For the purposes of this special report, all the overflows noted required a written report.

Explanations of entries:

Overflow ID 03-014: "disposal" reference is to debris typically from a kitchen sink disposal – in this case a pipe sag that collected debris such as egg shells, etc.

Overflow ID 03-023: "concrete" in this overflow refers to concrete that a building contractor mistakenly pumped into CCCSD's sewer line, causing a blockage and subsequent overflow.

Overflow ID 04-006: "surcharge" in this overflow refers to an overflow caused by surcharging a sewer in north Orinda due to an unusual and extremely heavy rain event that flooded the streets and surcharged the local sewer system. The sewer system in this area temporarily became part of the storm drain system. Historically, surcharging of this portion of our system has not been a problem.

JCP:2/28/05

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF ANALYSIS AND RECOMMENDATIONS

TO: Bruce Wolfe
Executive Officer

FROM: Greg Walker
Sr. WRCE

DATE: March 16, 2005

SIGNATURE:

SUBJECT: Consideration of Administrative Civil Liability for Violation of Sewage Discharge Prohibition in 1995 Water Quality Control Plan - **Complaint No. R2-2004-0098** Central Contra Costa Sanitary District

CONCUR:
Lila Tang
Division Chief

REVIEWED FOR LEGAL
FORM AND SUFFICIENCY:
Dorothy Dickey
Attorney

I. SUMMARY

The Administrative Civil Liability (ACL) Complaint No.R2-2004-0098 proposes a total fine of $165,000 on Contra Costa County Sanitary District (hereinafter the Discharger) for the violations of Discharge Prohibition A.2 of its NPDES Order No. 01-068 which states: "The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited, unless specified otherwise." The violations consist of 28 incidences of unauthorized discharges, or sanitary sewer overflows (SSOs), from its collection system totaling 274,375 gallons of untreated sewage to waters of the state for a period beginning on February 13, 2000, and ending on December 31, 2004. Of the total, the Discharger estimates that 97,175 gallons were unrecovered. The description of releases is included in Table 1.

The penalty assessment in the Complaint follows the procedures and requirements in the Water Quality Enforcement Policy (hereinafter the Enforcement Policy), which was adopted by the

State Water Resources Control Board on February 19, 2002, and approved by the Office of Administrative Law on July 30, 2002.

II. BACKGROUND

The Discharger provides sewage collection and treatment services, unless otherwise noted herein, to the Diablo Valley and Lamorinda areas of the East Bay. Its service area includes the cities of Concord, sewage treatment only for Clayton, Danville, Lafayette, parts of Martinez, Moraga, Orinda, Pleasant Hill, parts of San Ramon, and Walnut Creek. Also served are the unincorporated communities of Alamo, Blackhawk, Clyde, Diablo, Pacheco, Saranap, and unincorporated Walnut Creek. The area served is approximately 142 square miles.

The population served is approximately 440,000, with an average daily flow of 43.4 million gallons per day (MGD) and an average dry weather flow of 39.9 MGD. Total length of sewers is approximately 1,500 miles, with a size range of 4 inches to 102 inches in diameter. Sewers range in age from over 100 years, primarily in Martinez, to new. The estimated average age of the collection system is 35 years.

There are presently 22 pumping stations, located in areas where gravity service is not directly available. They are located primarily in the extreme western and southern portions of the District, as well as Martinez and the northern Concord area.

III. DISCHARGE PROHIBITIONS OF PERMIT AND BASIN PLAN VIOLATED

The Discharger violated Prohibition A.2 of its NPDES Order No. 01-068 which states: "The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited, unless specified otherwise."

The Discharger also violated a prohibition of the Basin Plan, which identifies beneficial uses and water quality objectives for surface waters in the San Francisco Bay region. It also establishes effluent limitations and discharge prohibitions intended to protect those beneficial uses. Specifically, Discharge Prohibition 15 in Table 4-1 of the Basin Plan states that it shall be prohibited to discharge raw sewage or any waste failing to meet waste discharge requirements to any waters of the region.

IV. ENFORCEMENT CONSIDERATIONS

Section 13385(e) of the California Water Code requires the San Francisco Regional Water Quality Control Board (Water Board) to consider various factors when issuing an ACL. This includes the nature, circumstances, extent and gravity of the violations, whether the discharge is susceptible to cleanup or abatement, degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, effect on its ability to continue its business, voluntary cleanup efforts undertaken, degree of culpability, prior history of violations, economic benefit or savings, and other factors justice may require. These factors are also described in the Enforcement Policy and are further discussed in the following sections.

A. Nature of Violations

Many of the SSOs were caused by blockage of the sewers commonly from roots or grease. Other causes of blockages are rags, paper or concrete or other plugs. Additionally two SSOs were caused by surcharges due to insufficient sewer capacity or equipment failures in the collection system and or pumping stations. The following are intended to provide examples of the various causes.

a. Root Blockage

On November 18, 2001, approximately 120,000 gallons of raw sewage overflowed into an upper tributary to Laguna Creek in Moraga due to a root blockage. Over the next two days the Discharger isolated and cleaned about one mile of creek by pumping and flushing about 130,000 gallons of dechlorinated water. The Discharger believes that the overflow was contained and returned to the sewer. The sewer had been on a 12 month cleaning schedule and was due to be cleaned again within a few weeks. The sewer was placed on a 6 month cleaning schedule.

On June 2, 2001, approximately 18,000 gallons of raw sewage overflowed into the west branch of Alamo Creek in Danville. The Discharger made several unsuccessful attempts to clear the stoppage but was unable to promptly locate the downstream manholes in easements due to landscaping. Once the roots were removed and the overflow stopped the Discharger used about 52,000 gallons of dechlorinated water to flush the storm drains and creek and a high pressure jetter to wash residual gray matter from the creek edges for approximately 250 feet. The Discharger believes the overflow was unrecovered.

b. Grease Blockage

On January 24, 2002, approximately 6,000 gallons of raw sewage overflowed into the west branch of Alamo Creek in San Ramon during a two-hour period due a partial grease blockage. A contributing factor was the failure of a temporary pneumatic inflatable plug, intended to isolate a sewer under construction. The pneumatic plug has been replaced with a mortared-in plug and the operating sewer was put on a 12 month cleaning schedule. The Discharger cleaned about 3 miles of storm sewer and creek with 80,000 gallons of water. The Discharger believes the overflow was recovered.

On June 6, 2002, approximately 1,875 gallons of raw sewage overflowed into the Grayson Creek concrete storm channel in Pleasant Hill due for over an hour due to a grease blockage. The line was on a 120-month routine cleaning schedule. After the SSO it was put on a 12-month cleaning frequency schedule. The Discharger believes the overflow was unrecovered.

c. Surcharge

On February 13, 2000, approximately 20,000 gallons of raw sewage overflowed into Upper Grayson Creek in Pleasant Hill for thirteen hours due to wet weather inflow conditions that surcharged the sewer. The line segments downstream were cleaned prior to the wet weather

season but the problems causing the overflow were to be upsized, replace and the siphons eliminated as part of a capital improvement project in the following year. The Discharger believes the overflow was unrecovered.

Another SSO occurred on February 25, 2004, when approximately 2,000 gallons of raw sewage overflowed into San Pablo Creek in Orinda for less than one hour due to wet weather inflow conditions that surcharged the sewer. The Discharger concluded that so much infiltration entered through submerged manhole structures and local sewer laterals that the flow exceeded the capacity of 10-inch diameter sewer. The flooded condition of the area also precluded any containment of the overflow. The Discharger is studying the best solution to this problem.

d. Equipment failure

On May 22, 2004, at 4:35 p.m., the pumping station inlet gate closed. At 6:58 p.m. the Contra Costa County Sheriff's Department received a call regarding a manhole overflowing raw sewage at Mangos Drive, San Ramon. At 7:47 p.m. the Discharger opened the inlet gate and stopped the overflow. During the overflow event, the raw sewage overflow entered a storm drain inlet on Mangos Drive, resulting in an unauthorized discharge of untreated sewage to South San Ramon Creek. The estimated volume of un-recovered sewage overflow was estimated to be 40,000 gallons. A study by the Discharger identified that the cause of the gate closure as accidental. Construction activities at the time of the gate closure prevented an adequate emergency alarm and flow rerouting. The Discharger responded promptly upon being informed of the accident and eliminated the overflow as well as cleaned streets, gutters and portions of the creek.

B. Circumstances, Extent, and Gravity of Violations

During the period beginning on February 13, 2000, and ending on December 31, 2004, the Discharger is alleged to have 28 incidences of unauthorized discharges, totaling 274,375 gallons of untreated raw sewage to waters of the state; of the total, 97,175 gallons were unrecovered.

The Discharger was very prompt in responding to SSOs caused by blockages and attempted to recover the flow discharged in SSOs. The Discharger also attempted to clean up the areas affected by the SSOs, including drainage courses and streams. Board staff believe that the Discharger may have overestimated the amount of flow recovered since some of it was likely to have percolated into the soil or remained in low concentrations in the receiving waters. Board staff also believe that the Discharger's cleaning process of flushing dechlorinated water through the affect drainage courses and streams and returning the flow to the sewer had an adverse impact on the biota. Board staff are unable to provide a more accurate estimate of the recovered flow or quantify the impact to the biota of the receiving waters.

The gravity of violations associated with the SSOs is significant, as the discharges did not receive treatment adequate to protect the receiving water's beneficial uses. The gravity of violations is also significant because of the lack of initial dilution. These undiluted discharges resulted in elevated pollutant levels in the receiving water at the point of discharge.

Collection system maintenance, in the form of cleaning, inspection, monitoring, rehabilitation and increased capacity, is performed to meet regulatory requirements and to improve sewerage service to customers. As the collection system ages, its strength is reduced by structural or mechanical failures and its capacity deteriorates due to root growth, and accumulation of grease, garbage and rags. Currently, the Discharger uses experience and judgment to estimate the appropriate level of system maintenance. Below is an assessment of the Discharger's program to address each of the general categories of SSO causes.

a. Blockages

Most of the SSOs listed in Table 1 were caused by blockages. They accounted for approximately 2/3 of all the flow discharged in SSOs, however, the Discharger estimated that approximately 86% of the discharged flow was recovered. Root and grease caused most of the blockages and the Discharger has an on-going program to remove roots and clean grease from the sewers. The Discharger was very prompt in responding to SSOs caused by blockages and attempted to recover the flow discharged in SSOs.

In a February 1999 study entitled *Optimization of Collection System Maintenance Frequencies and System Performance* completed by Black and Veatch and the American Society of Civil Engineers for the U.S. EPA, forty-one sewer collection system agencies of various sizes and locations throughout the United States, reported on their cleaning maintenance program from 1992 to 1996. The overall average annual cleaning rate varied from about 29% to about 32%, with the average being 30%. Thirty-six agencies reported having a root removal program and the overall average annual rate varied from about 1 percent to about 15%, with the average being 4%. In comparison with the agencies in this study, the Discharger has an average cleaning program and an above average root control program.

The Discharger cleans approximately 1,250 of its 1,500 miles of sewers on a regular basis and employs two types of cleaning methodology for cleaning the 4-inch to 15-inch diameter sewers. One method is mechanical, which is directed solely at roots, another is high-pressure water, directed primarily at grease and debris, but approximately 25% of this effort is directed toward roots.

Sewers cleaned on scheduled intervals of 60 months or less have a history of problems that requires more frequent cleaning to maintain the sewer's capacity at an acceptable level. Sewers cleaned at less frequent intervals because they are less problematic. The Discharger has reported that many sewers are cleaned on frequent schedules; some as short as one month, all of lines 15" in diameter or less are on schedule to be cleaned on a maximum frequency of 5 years. The following mileage has been cleaned since 2000:

Year	Miles Cleaned
2000	580
2001	591
2002	799

2003	746
2004	816

Yearly average for five years is 706.4 miles for all types of cleaning and the average percentage of the 1,265 miles, cleaned at least once annually, is 30%. During this period the yearly average for only root cleaning is 457.2 miles and the average percentage of the 1,265 miles, cleaned for roots at least once annually, is 25%.

The Discharger is currently undertaking a system-wide visual inspection of the sewer structures during a televised inspection to determine the condition of the sewers. The initial round for the televised assessment is scheduled for completion in 2008, at a cost over $7 million. The current program intends to complete 200 miles (13%) annually until the entire collection system is televised. To date, there has completed televised inspection of 235 miles of the 1,500-mile collection system (16%).

The Discharger reports that it has eight inspectors who perform Pretreatment (including food service establishments (FSEs)) and stormwater inspections. The stormwater inspections are conducted under contract with cities in the service area. Inspections of FSEs have been a significant component since the beginning of the Discharger's partnership with the cities. Most of the citations issued to FSEs under this inspection program have been for mismanagement or discharge of FOG wastes to the storm drain system.

The workgroup includes a full time superintendent of the program. In prior years, one of the group was primarily devoted to inspection of FSEs. That workload is now shared among all of the inspectors, with the result that none of the Source Control team individually works more than 50% of the time on FOG-related issues. Direct labor expenditures attributable to the Source Control FOG program are approximately $150,000 for this year.

The Source Control Section's FOG effort focuses on site inspections, customer outreach, and enforcement. Source Control staff inspects approximately 300 to 400 FSEs each year.

The Discharger has the authority to adopt and implement grease control regulations on public and private property. Under an ordinance and general permit, a condition such as a grease pretreatment device is required to ensure the proper handling of liquid waste containing grease. These devices must be kept in working order at all times and records kept of cleaning and maintenance.

b. Surcharges

As shown in Table 1, surcharges rarely occur and account for less than 10 percent of the flow of SSOs. However, since they commonly occur during intense rainfall events, when access is difficult, the flow is generally unrecovered.

The Discharger has developed a ten-year Capital Improvement Plan (CIP), updated every year, and identifies and prioritizes capital projects needed to accomplish long-term goals. The projects

are designed to reduce sewage overflows during wet weather, renovate aging sewer lines and structures, and to serve new development. At $155 million, the collection system program comprises approximately 65 percent of the proposed capital improvements over the next ten years.

The Collection System Master Plan is updated approximately every five years, and is revisited on a routine basis when changes in development patterns occur. This plan identifies the areas that will need increased capacity over the next 30 years and these projects are added to the Capital Improvement Budget and Plan, as this capacity is needed.

The Discharger has recently completed construction of the last of a series of projects in the Pleasant Hill area. Over the last five years, the Discharger has spent over $14 million in the Pleasant Hill area alone on projects to correct their last known wet weather overflow sites. In the past 15 years, the Discharger has spent $90 million to increase the collection system capacity and reliability and has an additional $45 million budgeted in the 10-Year Capital Improvement Plan.

A 1985 system-wide flow monitoring study has served as the Discharger's basis for rainfall-dependant infiltration and inflow (RDI/I) modeling for the past 20 years. This study collected data over a 9-week period in early 1985 from 35 flow monitors and 15 rain gauges. Since the original flow monitoring study, there has been significant service area growth and redevelopment. The master plan update (March 2000) considered the effects of these land use changes from a base wastewater flow (BWF) standpoint, but could not re-evaluate RDI/I and ground water infiltration (GWI) assumptions without additional flow and rainfall monitoring data. To refine the RDI/I and GWI assumptions for today's collection system, a second flow and rainfall-monitoring study is currently taking place. It began in late December 2004, and is scheduled to last between 10 and 16 weeks, and utilizes 33 flow meters and 16 rain gauges. The Discharger will evaluate the following design flow criteria in this most recent study:

1. Saturation Adjustment
2. Deterioration - Relationship of RDI/I to Age of Sewers
3. Base Wastewater Flow Rates
4. Future I/I Rates

c. Equipment failure

As shown in Table 1, equipment failures occurred more often that surcharges but were still rare and accounted for about 24 percent of the flow of SSOs. According to the Discharger, most of this flow was unrecovered.

The Discharger implemented a sewer renovation program in 1991. Candidate sewer segments are identified and evaluated and placed on a priority list for replacement or renovation. In addition to condition assessment, the proximity of lines to creeks, past overflows, drinking watersheds, and other similar issues are used to establish project priority. In conjunction with the renovation program, there were 118 "point repairs" in 2004 on sewers to maintain the collection system's integrity.

Pumping station projects have also been developed in areas with capacity issues, specifically Martinez, where overflows occurred in the 1980s. Projected capacity requirements have led to large pumping station projects in Moraga, Orinda Crossroads, and Lower Orinda. To accommodate the increased flows resulting from development of the Dougherty Valley, improvements were made to the San Ramon Pumping Station. The Pumping Station Master Plan (1988) and its subsequent revision (2000) provide a record of the Discharger's proactive approach to these capacity issues.

Approximately eight percent of the Capital Improvement Budget is allocated to the General Improvements Program to improve or replace these key components and systems.

C. Degree of Toxicity of the Discharge

It is difficult for Board staff to accurately assess the direct impacts of the discharge. However, raw sewage typically has elevated concentrations of biochemical oxygen demand, trash, total suspended solids, oil and grease, ammonia, bacteria (which is measured in terms of total and fecal coliform), and viruses. These pollutants exert varying levels of impact on water quality, and hence may adversely affect beneficial uses of receiving waters and to some extent can adversely affect water quality and beneficial uses as a result of sewage overflows that includes:

- Adverse impact to fish, and other aquatic biota caused by bio-solid deposition and oil and grease;
- Creation of a localized toxic environment in the water column as a result of the discharge of oxygen demanding pollutants, that lower dissolved oxygen, and elevated ammonia concentration, which is a demonstrated fish toxicant at low concentrations; and,
- Impairment to water contact recreation and harm to fish and wildlife as a result of elevated bacteria levels including pathogens.

D. Discharge Susceptible to Cleanup and Abatement

The Discharger was not able to recover the approximately 97,175 gallons of raw sewage that overflowed from 9 of the unauthorized discharges or SSOs from its collection system.

E. Voluntary Cleanup Efforts Undertaken

The Discharger did make efforts to recover and clean up each of the 28 SSOs.

F. Degree of Culpability

The Discharger owns and operates the sewers that were responsible for the SSOs. As shown in Table 1, the Discharger estimates that 177,200 or 65% of the 274,375 gallons of raw sewage that overflowed the system from the 28 unauthorized discharges were recovered.

G. History of Violations and Enforcement

The Water Board has not taken any previous enforcement action concerning the SSOs listed in Table 1. In 1998, the Water Board issued a $55,700 administrative civil liability in 1998 for the February 12, 1998 release of approximately 1 million gallons of raw sewage to San Pablo Creek due to a catastrophic failure of the Discharger's Orinda Crossroads pumping station.

H. Other Factors Justice May Require

The Discharger has been responsive to Water Board staff's request for information in the preparation of this Complaint.

V. DETERMINATION OF ACL AMOUNT

The Enforcement Policy establishes the procedure to set ACL amounts. The procedure consists of nine steps, namely, initial liability, beneficial use liability, base amount, adjustment for dischargers' conduct, adjustment for other factors, economic benefit, staff costs, adjustment for ability to pay, and check against statutory limits. The determination of the proposed ACL amount for the above cited violations of the Basin Plan's discharge prohibition follow the Enforcement Policy, and is summarized as follows:

A. Initial Liability

The Enforcement Policy directs that the initial liability be set based on factors related to the discharge – the nature, circumstances, extent, and gravity of the violations, the degree of toxicity of the discharge, and the susceptibility of the discharge to cleanup or abatement. It further states: "For spills, effluent limitation violations, and similar violations, the initial water quality liability can be based on a per-gallon and/or per day charge." In consideration of these factors, the initial water quality liability is determined to be $155,000.

B. Beneficial Use Liability

It is difficult for Water Board staff to accurately access the direct impact of the discharges to surface waters caused by the overflows. Raw sewage has elevated concentrations of biochemical oxygen demand, total suspended solids, oil and grease, ammonia, and bacteria measured in terms of total and fecal coliform. These pollutants exert varying levels of impact on water quality and may adversely affect beneficial uses as a result of this sewage overflow. The Discharger responded promptly to minimize the amount of the overflows and to clean up the impacts of the overflow. There is no evidence that the adverse impacts were excessive or long lasting. Therefore an additional assessment is not added to the initial liability for beneficial use impacts.

C. Base Amount

The Enforcement Policy describes that the base amount can be a combination of the initial liability and the beneficial use liability. Board staff believes the above combined initial and beneficial use liabilities of $155,000 is an appropriate base amount to reflect the significance of the violation.

D. Conduct of the Dischargers

Because of conduct of the Discharger in response to the overflows, and promptly providing information requested by Board staff, the base amount is not increased.

E. Adjustment for Other Factors

As discussed in section IV.H above, Water Board staff believes the above ACL amount of $155,000 is appropriate and no further adjustment is needed based on other factors.

F. Economic Benefit

The economic benefit to the Discharger amounts to the interest and/or income earned from capital investments that would have otherwise been spent on the proper management of the collection system to comply with the waste discharge requirements. Water Board staff realizes that using metric benchmarking to determine the quality of collection systems is problematic at this time for a number of reasons, including the differences in collection systems, difficulty for volume estimations, the limited data and the quality of self reported data for comparison. The Water Board has standardized reporting and provided guidance in volume estimations. However, this was done just recently so a good database for comparison is not currently available to allow for such analysis in this case. Water Board staff has utilized two metrics to evaluate the Discharger based on a limited study and the results are ambiguous.

The total spill rate for all spills in the Region, regardless of whether they are recovered, is valuable a metric but is not currently available. The Discharger's total spill rate for all spills is difficult to determine. Historically, the Discharger has not reported individual spills of less than 100 gallons that were recovered. The Discharger has estimated that the rate of total spills has varied from 8.2 to 10.8 during the period of years 2000 through 2004. This is above the median spill rate of 3.82 and the average spill rate of 5.82 reported by R.W. Beck, in a February 2000 study of 9 collection systems in Southern California in a report entitled "Benchmarking Analysis of the Collection System Division Metropolitan Wastewater Department City of San Diego, California."

There is another metric available based on a limited amount of data for large spills. Table 1 lists 19 SSOs greater than 1,000 gallons. This corresponds to a spill rate of 0.24 SSOs/100 miles/year (19 SSOs/15 hundred miles/5years). The Discharger's spill rate for large spills is below the median spill rate of 0.44 and the average spill rate of 0.75 reported by R.W. Beck, as referenced above.

Based on this limited data and conflicting metrics, Water Board staff does not believe the Discharger obtained economic benefit from the SSOs listed in Table 1.

G. Staff Costs

Water Board staff spent a total of 100 hours staff time to prepare the Complaint and supporting evidence. At an average cost to the State of $100 per hour, the total staff cost for this

enforcement action was $10,000, and added to the ACL amount. The adjusted ACL amount becomes $165,000.

H. Ability to Pay and Ability to Continue in Business

Water Board staff does not consider that the recommended ACL amount will seriously jeopardize the Discharger's ability to continue operations.

I. Statutory Maximum Penalty

The statutory maximum amount of ACL for each day of violation is ten thousand dollars ($10,000) plus ten dollars ($10) times the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. The proposed ACL amount does not exceed the statutory maximum penalty.

VI. RECOMMENDATION

In consideration of the facts in this case, Water Board staff recommends a civil liability of $165,000 be imposed against the Discharger for violation of Discharge Prohibition 15 contained in Table 4-1 of the Basin Plan and the unauthorized discharges listed in Table 1. The proposed ACL amount includes the recovery of staff cost in preparation of the Complaint.